

METHODS AND APPARATUS FOR ASSEMBLING  
SOLID OXIDE FUEL CELLS

ABSTRACT OF THE DISCLOSURE

A fuel cell stack assembly includes at least a first fuel cell and a second fuel cell electrically coupled together such that at least one sealed passage extends between the first and second fuel cells. Each of the fuel cells includes at least one hollow manifold that includes a wall extending between a first end and a second end. Each wall defines a chamber therein, and includes at least one opening extending therethrough in flow communication with the chamber. The fuel cell stack assembly also includes at least one fuel cell isolation device coupled in flow communication with each fuel cell hollow manifold. The at least one fuel cell isolation device is variably positionable during fuel cell stack assembly operation for selectively stopping fluid flow through at least one of the fuel cells.